EPE®

Industrial Filters · Accumulators

Mobile Particle Counter

MPC 4614

Description:

The MPC 4614 is an optical particle counter and it is used for the detection of solid contamination in hydraulic and lubricating systems.

It's working principle is based on the light extinction effect.
Together with the fluid flow, particles are passing a miniature photo sensor and interrupting the light beam. They generate a shadow.

The size of the shadow area determines the particle size and the number of shadowing effects defines the number of particles.

The sensor detects particles whose equivalent diameters are equal or larger than 4µm. The sensor flow is created by means of a flow regulation device.
A single measurement takes one minute. The progress of the measuring sequence is indicated by a backward moving timer in the double-spaced LC - display.

The amount of contamination for particle sizes 4µm(c), 6µm(c), 14µm(c) and 21µm(c) is calculated according to the cumulative classifications of ISO4406 and AS4059.

During the measurements the results may given out on a printer.

Independent from the way of measurement output (on display or printer) the results are saved in a data memory inside the particle counter (data logging function).

After terminating of all measurements the results may printed out or transmitted to a personal computer.

Technical Data:

Measurement:	Optical particle counter with integrated sensor flow regulation
Measuring principle:	Light extinction technology, for particles larger than 4 µm(c) equivalent diameter
Particle concentration:	40.000 particles / ml max.
Measuring results:	as per ISO4406 and AS4059 for particles >4 µm(c), 6 µm(c), 14 µm(c) and 21µm(c).
Display:	LCD with background illumination, 2 x 16 characters
Operating elements:	On / off switch, two menu buttons for switching the classification mode
Printer and data interface:	RS 232 C
Data memory:	non-volatile, sufficient for approx. 30 hrs
Real time clock:	detection of date and time at starting point of measurement
Auxiliary power:	Integrated rechargeable battery for approx. 15 hrs measuring time
Battery charger:	230V, 50Hz / 12V, 600 mA
Calibration:	Secondary calibration with test oil
Accuracy :	± 0,5 codes

Quality assured

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Hydraulic data:

Suitable for hydraulic- and lubricating oils on mineral oil basis

Minimum pressure: 12 bar
Maximum pressure: 350 bar

Viscosity range: 10 - 200 mm² / s

Sensor flow rate : approx. 300 ml / min

Fluid temperature: 5 - 70 °C

Fluid contacted parts:
glass, brass, aluminum,steel,buna-N

Surrounding conditions: 5 - 40° C
No bedewing atmosphere

Additional informations:

Protection category: IP 54

CE -conformity:
EN 55022,
EN 61000-4-2,
EN 61000-4-3,
EN 61000-4-4,
EN 61000-4-5 .

Machinery directive is fulfilled.

Weight: approx. 5 kg

Dimensions:

*233*121*approx. 300 (B*H*T) in mm*

Ordering information:

MPC 4614 | T | S

Type:

Mobile particle counter ,

Design according to description of this data sheet

Scope of delivery:
Particle counter,
RS232 DB9 / RS232 DB9 female cable,
Battery charger
230V,50Hz / 12V,600mA

Accessories:

T = Transportation case

Software:

S = Software-tool for generating diagrams out from saved measuring results.

Optional:

Subsequent calibration with test oil